



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,437	04/22/2004	Hiroshi Tojo	00862.023559.	8784
5514 7590 02/06/2009 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				
EXAMINER				
ROBERTS, JESSICA M				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
02/06/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/829,437

Applicant(s)

TOJO, HIROSHI

Examiner

JESSICA ROBERTS

Art Unit

2621

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/27/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgement of Amendment

Applicant's Amendment filed on 10/27/2008 overcomes the following objection(s)/ rejection(s):

The objection to the specification has been withdrawn in view of Applicants' Amendment.

The rejection of claims 22-23 under 35 U.S.C 101 has been withdrawn in view of Applicants' Amendment.

Response to Arguments

1. Applicant's arguments filed 10/27/2008 have been fully considered but they are not persuasive.

As to Applicants' argument requesting that the restriction requirement be withdrawn, and that Claims 1-11 be examined on the merits.

The Examiner respectfully disagrees. Claims 1, 2, and 9-11 are direct to species I which is described in Figure 8. Claims 3-8 are directed to species II, which is described with Fig. 12. Claim 12-23 are directed to species IV, which is described with Fig. 20. Claims 1-23 are drawn to different species, the Examiner maintains the restriction. Since claims 1-23 are drawn to different species, this is indicative that there is more than one invention disclosed within the current application, as such claims 12-23 will be treated on the merits in response to Applicants election of the fourth embodiment.

As to Applicants' argument regarding Fig. 17 is not necessarily "Prior Art". Withdrawal of the objection is therefore respectfully requested.

The Examiner respectfully disagrees. The elements of Fig. 17 that are explained in [0004] are considered conventional, as the Applicant has defined Fig. 17 is a view for explaining the conventional moving image dividing technique. Therefore, since the Applicant has defined Fig. 17 as a view for explaining the conventional moving image technique, thus the Examiner maintains that Fig. 17 constitutes as Prior Art. Further, Examiner maintains that Fig. 17 should be designated by a legend such as -- Prior Art-- because only that which is old illustrated.

As to Applicants' argument for amended claim 21, regarding the applied prior art is not seen to disclose or suggest the features of the present invention, and in particular is not seen to disclose or suggest at least the features of (i) dividing a moving image on

the basis of a plurality of items of additional data which indicates states upon sensing the moving image, (ii) adding the additional information to the moving image such that the additional data is able to read out for each item from the moving image.

The Examiner respectfully disagrees. In response to applicant's arguments, the recitation dividing a moving image on the basis of a plurality of items of additional data which indicates states upon sensing the moving image, (ii) adding the additional information to the moving image such that the additional data is able to read out for each item from the moving image, has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

As to Applicants' argument regarding Matsushita '488 is not seen to disclose or suggest dividing a moving image, much less doing so on the basis of a plurality of items of additional data which indicate states upon sensing the moving image.

The Examiner respectfully disagrees.

As to Applicants' argument regarding Matsushita '488 is not seen to disclose or suggest dividing a moving image.

The examiner respectfully disagrees. Matsushita discloses teaches to perform the dividing the continuous frame into a shot based on camera work, [0020].

As to Applicants argument that Matsushita '488 cannot disclose or suggest generating division information corresponding to the item group on the basis of the additional data of the image which belong to the item group, or adding division positions based on division information of an upper layer to division positions of division information of a lower layer.

The Examiner respectively disagrees. Matsushita teaches where it performs dividing the continuous frame into a shot based on camera work. Camera works are zoom operation and pan-operation, and show the example which divided into five shots the frame which follows drawing 4 by zoom operation and pan-operation.

Matsushita (modified by AAPA) teaches where Fig. 17 is a view for explaining the conventional moving image dividing technique. (a) of Fig. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective items. (b) of Fig. 17 shows the image dividing result using these Gain, White Balance, subject distance, Zoom and Pan items. As shown in (b) of Fig. 17, since division positions based on a plurality of different items are present together, the moving image is segmented into many intervals [0004]. Since AAPA discloses to divide the image changing points into layers, (gain, white balance, zoom and pan), and creates a division result, it is clear to the examiner that AAPA teaches to add the changing point layers to create the division which reads upon the claimed limitation of adding division positions based on division information of an upper layer to division positions of division information of a lower layer.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 12-23 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the method for compressing video data including the steps of "generation", "hierarchization", or "holding" is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally, or without a machine. The Applicant has not tied the moving image processing method with the steps of "generation", "hierarchization", or "holding" to a physical element to perform the method as claimed.

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Drawings

1. Figure 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 2621

4. Claims 12-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Matsushita et al., JP 8163488 and in view of Applicants Admitted Prior Art (AAPA) and further in view of well known prior art (Official Notice).

Regarding claim 12, AAPA teaches A moving image processing method for dividing a moving image on the basis of a plurality of items of additional data which indicate states upon sensing the moving image, wherein the additional data is added to the moving image and is able to be read out for each item from the moving image comprising: a generation step of defining an item group formed of one or a plurality of items selected from the plurality of items (Matsushita teaches this invention aims at offering the equipment which generates the digest which is easy to grasp the contents of a dynamic image in view of this point [0004]. Therefore, it is clear to the examiner that Matsushita teaches to generate a digest of images, which reads upon the claimed limitation) and generating division information corresponding to the item group on the basis of the additional data of the items which belong to the item group (Matsushita teaches to perform the dividing the continues frame into a shot based on camera work. The camera works are zoom operation and pan operation [0020]); a hierarchization step of hierarchizing a plurality of division information generated for each item group, and of adding division positions based on division information of an upper layer to division positions of division information of a lower layer, and a holding step of holding the division information obtained in the hierarchization step in correspondence with the moving image data (Matsushita teaches with which the information showing a hierarchical structure, i.e., a scene, a cut, and each head frame and termination frame

of the shot are memorized is memorized to the hierarchical structure [0023]. Further taught is that as mentioned above, by generating the hierarchical structure of video and memorizing to the storage with video, when photoing video with the equipment equipped with a photographing functions, such as video camera, in this example arbitrary [based on hierarchical structure] after photography –it becomes possible to generate the digits [0025]. Since Matsushita teaches to generate the hierarchical structure of video to the storage with video, it is clear to the examiner that Matsushita discloses to hold the division information obtained from the hierarchical structure, which reads upon the claimed limitation). Matsushita does not explicitly teach hierarchization step of adding division positions based on integrated division information of an upper layer to division positions of integrated division information of a lower layer in accordance with a hierarchical order of a plurality of pieces of integrated division information, which are generated in the generation step in correspondence with a plurality of different item groups.

However, AAPA teaches hierarchization step of adding division positions based on integrated division information of an upper layer to division positions of integrated division information of a lower layer in accordance with a hierarchical order of a plurality of pieces of integrated division information, which are generated in the generation step in correspondence with a plurality of different item groups (AAPA teaches FIG. 17 is a view for explaining the conventional moving image dividing technique. (a) of FIG. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single

moving image for respective items. (b) of FIG. 17 shows the image dividing result using these Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of FIG. 17, since division positions based on a plurality of different items are present together, the moving image is segmented into many intervals [0004]. Since AAPA discloses to divide the image changing points into layers (gain, white balance, zoom and pan), and create a division result, it is clear to the examiner that AAPA teaches to add the changing point layers to create the division result which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of AAPA with Matsushita for providing more efficient image processing.

Matsushita (modified by AAPA) as whole does not explicitly disclose wherein the plurality of division information is hierarchized and the division positions are added in a case that the plurality of division information is generated in the generation step in correspondence with a plurality of an item groups.

However, Official Notice is taken that both the concept and advantage of providing the limitations as claimed are notoriously well known and expected in the art, and therefore, would have been obvious to incorporate in Matsushita (modified by AAPA) for providing improved editing.

Regarding claim 13, Matsushita (modified by AAPA and well known prior art) as a whole teaches everything as claimed above, see **claim 12**. Matsushita is silent in regards to The method according to claim 12, further comprising a setting step of

setting the hierarchical order of the plurality of pieces of division information on the basis of division counts of the division information.

However, AAPA discloses For example, FIG. 17 is a view for explaining the conventional moving image dividing technique. (a) of FIG. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective items. (b) of FIG. 17 shows the image dividing result using these Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of FIG. 17, since division positions based on a plurality of different items are present together, the moving image is segmented into many intervals [0004]. Therefore, it is clear the examiner that the reference more than fairly suggest or teaches to set a hierarchy based on the division counts. Since AAPA discloses the division positions are based on a plurality of different items that are present together, it would have been obvious modification for one of ordinary skill in the art at the time of the invention to count the division information for providing enhanced image processing, which reads upon the claimed limitation.

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the teachings of AAPA with Matsushita (modified by well known prior art) for providing more efficient image processing.

Regarding claim 14, see rejection and analysis made in claim 13.

Regarding claim 15, Matsushita (modified by AAPA) teaches everything as claimed above, see **claim 12**. In addition, Matsushita teaches the method according to claim 12, wherein the hierarchical order of the plurality of pieces of division information

is set according to a hierarchical order which is set in advance for respective item groups (Matsushita teaches the block diagram of this example is shown in drawing 1. This example reads into the hierarchy selection means 5 the hierarchical structure information memorized by the hierarchic-structure storage 2, and based on the surface roughness input from the digest surface roughness input means 7, the hierarchy selection means 5 chooses the information on a specific hierarchy from the read hierarchical structure information, and outputs it to the extraction section determination means 6, [0010]. Therefore, it is clear to the examiner that Matsushita discloses to select a specific hierarchy, which would necessitate setting the hierarchy in advance, which reads upon the claimed limitation).

Regarding claim 16, Matsushita (modified by AAPA and well know prior art) as a whole teaches everything as claimed above, see **claim 12**. In addition Matsushita teaches the method according to claim 12, further comprising a designation step of designating the hierarchical order of the plurality of pieces of division information (Matsushita teaches the hierarchic structure is generated and the memory address on the dynamic-image storage 1 with the information showing the hierarchic structure, i.e., scene and a hierarchy selection means to choose the hierarchy of the section dynamic image extracted according to the inputted surface roughness from said hierarchic-structure storage, [0006] and [0010]).

Regarding claim 17, Matsushita (modified by AAPA and well known prior art) as a whole teaches everything as claimed above, see **claim 12**. In addition Matsushita teaches The method according to claim 12, further comprising: a representative image

generation step of generating and holding representative images which represent respective intervals of a moving image that are specified by division information of respective layers obtained in the hierarchization step (Matsushita teaches the hierarchic structure is generated and the memory address on the dynamic-image storage 1 with which the information showing the hierarchic structure, i.e., a scene, a cut, and each head frame and termination frame of the shot are memorized is memorized to the hierarchic-structure storage 2. Moreover, to memorize the memory address on the dynamic-image storage 1 of the frame which represents a scene, a cut, and a shot further as hierarchical structure information [0023]) ; and a display step of displaying, when one interval of one layer is designated, representative images of intervals included in the designated interval in a layer lower than the one layer (Matsushita discloses where a dynamic image can be expressed by the hierarchic structure called a frame, a shot, a cut, and a scene in the way. A least significant layer is a frame and a frame is the picture of one sheet photoed at the video rate [0011]. Further, the case where the information on a cut hierarchy was chosen from the hierarchy selection means 5, and it is inputted about operation of the extraction section determination means 6 is made into an example, and it explains. With the extraction section determination means 6, the section which extracts the dynamic image of several frames which continued from each cut based on the information on a cut hierarchy is determined. The method of some determination methods of the extraction section being considered and extracting a predetermined frame number from the head of a cut -- or there is a method of extracting the middle predetermined frame number of a cut.

Moreover, when it has the frame information which represents a cut as information on the hierarchic structure, you may determine the extraction section that a representative frame is included based on a representative frame.

The read-out means 3 and the display means 4 read the picture of the extraction section determined with the extraction section determination means 6 from the dynamic-image storage 1, and display it [0014]. Therefore, it is clear to the examiner that Matsushita discloses to display an image based on the selected hierarchy. Further, since Matsushita discloses the information is in a hierarchy, then Matsushita is more than fully capable of displaying images that have a lower hierarchical order than what is selected, which reads upon the claimed limitation).

Regarding claim 19, Matsushita (modified by AAPA and well know prior art) as a whole teaches everything as claimed above, see **claim 12**. In addition, Matsushita teaches The method according to claim 12, further comprising a storage step of storing the integrated division information obtained in the hierarchization step in a storage medium in correspondence with the moving image data (Matsushita teaches a generation of the video digest of a natural display is enabled by storing the generated digest picture in a video storing medium [0042]).

Regarding claim 20, Matsushita (modified by AAPA and well know prior art) as a whole teaches everything as claimed above, see **claim 12**. Matsushita is silent in regards to the method according to claim 12, wherein the item group includes one of an environment upon sensing an image, a sensed subject, a subject size upon sensing an image, and an effect applied to a moving image (AAPA teaches a conventional moving

image dividing technique. (a) of Fig. 17 shows the changing points (Gain, White Balance, and subject distance, zoom, pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective items [0004] and fig. 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of AAPA with Matsushita for providing more efficient image signal processing.

Regarding claim 21, see rejection and analysis made in claim 12, except this is a claim to an apparatus with the same limitations as claim 12.

Regarding claims 22 although Matsushita (modified by AAPA and well known prior art) is silent in regards to the use of a computer readable recording medium recording a control program which makes a computer execute or processor based method, it would obvious to one of ordinary skill that when performing digital signal processing the use of a digital signal processor is used. Further a digital signal processor and computer readable recording medium recording a control program which makes a computer execute, are functional equivalents of one another and are used interchangeably. Therefore, it would have been obvious to incorporate a computer readable recording medium recording a control program which makes a computer execute for use when performing digital signal processing.

Regarding claim 23, see the rejection and analysis made for claim 22.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita et al., JP 8163488 (herein referenced as Matsushita) and in view of

Applicants Admitted Prior Art (AAPA) and further in view of Matsushita et al., JP 05-147337 (herein referenced as Matsushita'337), and well known prior art (Official Notice).

Regarding claim 18, Matsushita (modified by AAPA and well know prior art) as a whole teaches everything as claimed above, **see claim 17**. Matsushita is silent in regards to The method according to claim 17, further comprising an execution step of executing a predetermined process for an interval of a moving image, which corresponds to a representative image selected from the representative images displayed in the display step.

However, an execution step of executing a predetermined process for an interval of a moving image, which corresponds to a representative image selected from the representative images displayed in the display step (By equipping a video recording medium with the above representative picture image extraction image information, it becomes possible to extract the representative picture image in video so that subsequent samples may explain [0011]. Further taught is The information for extracting a representative picture image beforehand is recorded on the video recording medium with the video signal, and the above example explained the case where read the extraction information on a representative picture image from a video recording medium, and a representative picture image was extracted. However, even when a part or all of the information for extracting a representative picture image does not exist in a video recording medium, by processing the video signal recorded on the video recording medium, the information for extracting a representative picture image can be

acquired, and a representative picture image can be extracted based on the acquired information [0014].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Matsushita'337 with Matsushita (modified by AAPA and well know prior art) for providing a device and video recording medium which extract automatically the representative picture image which fully expresses the contents in video in view of this point [0004].

Examiner's Note

1. The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
3. Hua et al., US-2004/0085341 System and method for automatically editing a video.
4. Llach-Pinsach et al., US-6,842,197 Automatic extraction method of the structure of a video sequence.
5. Lennon et al., US-2002/0152267 Method for facilitating access to multimedia content.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Jessica Roberts/
Examiner, Art Unit 2621